

BOOK REVIEW.

MINOR ELEMENTS AND THEIR EFFECTS ON THE GROWTH AND CHEMICAL COMPOSITION OF HERBAGE PLANTS, by R. Dorrington Williams, Commonwealth Agricultural Bureau, 1959. 68 pages. Price 7s. 6d.

This short review is most enlightening. Although the review only covers 34 pages (and the comprehensive bibliography another 30 pages), it is very comprehensive in its scope. The first six pages constitute a very clear introduction to the general problem of minor element nutrition, and into this setting the specific theme of pastures and herbage plants is skilfully introduced. Nor does the author limit the scope of his work to minor elements, and minor elements alone. He takes care to integrate trace element problems into the broader picture of general nutrition, showing the inter-relationships between major and minor elements, climates, soils and agricultural practice.

Many will regret that this useful and instructive little book only appears as a soft-covered mimeographed publication. The matter deserves a better setting.

The author is to be congratulated upon the presentation of his material. What might have been a boring compilation of facts and references has been arranged to give a concise, clear and comprehensive picture of what is known about the influence of trace elements upon herbage plants.

KARL H. SCHÜTTE.

SUBCELLULAR PARTICLES: The Fifth Annual Symposium Publication of the Society of General Physiologists. Edited by Teru Hayashi. The Ronald Press Company, New York. Price \$6.00. 213 pp.

The publicity given to sputniks and interplanetary rockets has completely dazzled the reading public, and even many scientists overlook the fact that amazingly spectacular advances have been made in the field of biology since the war. Entire new fields have been opened up, and the results obtained are frequently so striking that, paradoxically, we do not see them, because of our ignorance of the tools and methods employed.

This book deals with one of these fields. The aim of the symposium was to emphasize the structural aspect of subcellular particles and relate this to their function, and to bring this work to the notice of the variegated membership of the Society of General Physiologists. Through this book

an even wider audience is reached, and there is no doubt that the aims of the promoters of this symposium have been achieved.

The eleven contributions that comprise this book are of greater or lesser interest, depending upon one's background, but there is no doubt that the authors have succeeded in clearly portraying the present state of this branch of science. A striking feature is the really critical approach used by many of the authors.

A very useful book for all who are interested in the physiology of the protoplasm.

KARL H. SCHÜTTE.